CAPP CANADIAN ASSOCIATION OF PETROLEUM PRODUCERS

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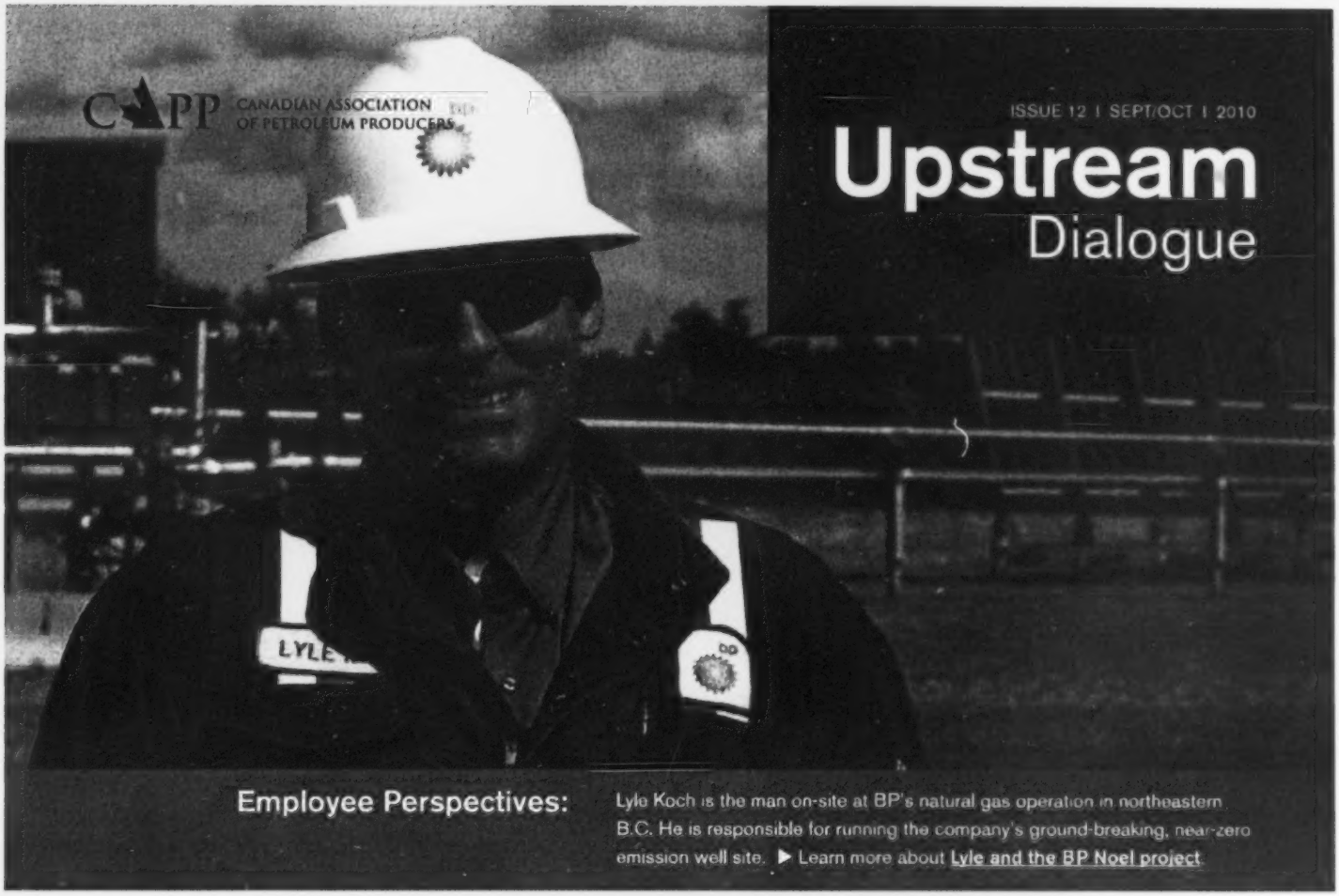
Upstream Dialogue



Employee Perspectives: Lyle Koch is the man on-site at BP's natural gas operation in northeastern B.C. He is responsible for running the company's ground-breaking, near-zero emission well site. ▶ Learn more about **Lyle and the BP Noel project**.

RESPONSIBLE CANADIAN ENERGY™

Nominate your company

The Responsible Canadian Energy Awards recognize CAPP members who have demonstrated exceptional performance in the responsible development of Canada's petroleum resources. **Deadline for submissions is Dec. 1, 2010.**

▶ Access the **nomination package.**

Offshore Production

Canadian offshore production represents about 10 per cent of Canada's crude oil production and 2.5 per cent of natural gas production.

▶ Find out more about **Canada's offshore industry.**

Now Available
Offshore industry fact sheets
Access the fact sheets.

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BC Gas

Canada is the world's third largest producer of natural gas with average annual production of 6.4 trillion cubic feet (tcf). British Columbia is Canada's second largest producer of natural gas.

▶ Source: Centre for Energy Information

$386 billion

Over the next 25 years natural gas activity in BC will contribute $386 billion to Canada's GDP, with more than 90 per cent flowing to BC.

▶ Source: Canadian Energy Research Institute 2009

34,000 jobs

The oil and gas industry invested about $45 billion in BC over the last 10 years, producing 34,000 direct and indirect jobs (cumulative).

▶ Source: CAPP and B.C. Liberals

News highlights

Natural gas development is a critical element of a low-carbon future in BC
August 18, 2010, The Vancouver Sun

▶ Read this article by CAPP President, Dave Collyer, that was prompted by a story in the Vancouver Sun by Mark Jaccard and Brad Griffin, B.C.'s dishonesty on climate change.

Social media

Activist fail: For environment or against anything?

This video, posted to YouTube about six months ago, has seen renewed interest. The video investigates the motivation behind environmental activism and features Patrick Moore, a Greenpeace founder and past president who left the organization due to its evolving political agenda.

Oil, gas industry is making environmental progress
August 11, 2010, The Edmonton Journal

▶ Read this article by CAPP President, Dave Collyer, commenting on Canada's unique opportunity to address growing global energy demand in face of activist agendas promoting unrealistic transition to renewable energy supply.

New NPRI Tailings Reporting Provides Greater Transparency for Oil Sands Mining
August 9, 2010, CAPP news release

▶ Read CAPP's response to the 2009 National Pollutant Release Inventory (NPRI) report that now includes new data on the mining industry's waste rock and tailings.

▶ Access the NPRI report.

▶ Read Calgary Herald article by Shaun Polczer, CAPP sees benefit in reporting oilsands tailings.

Tarred with the same brush
August 5, 2010, The Economist

▶ Read this article that comments on the Canada and U.S energy relationship.

▶ Read CAPP's response (scroll down to Crude Arguments) that highlights misleading information presented in the article.

CAPP is on Twitter.
Follow us @OilGasCanada.

CAPP is on Facebook.

Industry in the News
(continued)

Oil sands boycott

On August 26, 2010, activist group Forest Ethics positioned a media story with Canadian Press indicating four U.S. retailers – Gap, Timberland, Levi-Strauss and Walgreens – will boycott oil sands crude oil products. The alleged boycott is part of Forest Ethics' and the Rainforest Action Network's broader Fortune 500 campaign pressuring transportation companies and retailers to cease use of oil sands-derived fuels.

Levi-Strauss, Timberland and the Gap have since issued clarifications of their corporate positions indicating they are not boycotting oil sands crudes, but are asking carriers in their supply chains how they are moving towards less-carbon intensive fuels – a position which fits with oil sands producers' efforts to lower CO_2 per barrel.

This is what they told us:

"Levi Strauss has not told contractors it will give preference to those who avoid oil sands oil. We will be meeting with the Canadian Consulate in San Francisco later this week to get a better understanding of how the oil sands are operated."
- Levi Strauss & Co. spokesperson

"We have asked potential transportation providers in Canada to tell us if they are using fuels that have been identified as being carbon-intensive."
- Gap spokesperson

"We do not boycott fuels… we don't have enough visibility into the fuel sources our carriers use to do so intelligently."
- Timberland spokesperson

- Read Calgary Herald article, Oilsands boycott: Where are the ethics?
- Read Levi's recent blog post, Setting the Record Straight.
- Read Timberland's recent blog post, Reducing Emissions – Not Boycotting Fuel.

MYTH vs FACT

Myth

Forest Ethics and the Rainforest Action Network are urging Fortune 500 companies to eliminate oil sands fuels from their supply chain.

They say oil sands can not compete with fuels from other source and oil sands is the "dirtiest oil on the planet".

Fact

It is extremely difficult or impossible to eliminate oil sands from the American fuel supply chain.

Western Canadian crude comprises about one-third of all U.S. mid-west supply – about half of that crude comes from oil sands. Oil sands crude mixes with conventional sources – all of which is refined into liquid transportation fuels such as gasoline and diesel fuel. By the time it gets to the pump, separating the molecules is impossible.

"Consumers, especially those serving diverse locations in western Canada, cannot avoid oil sands crude unless they have non-oil fuel sources." - Tim Shipton, President of Alberta Enterprise Group

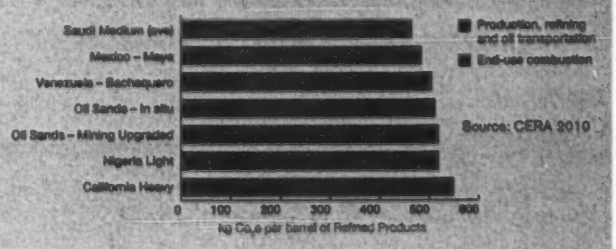
Oil sands CAN compete with crude oil from other sources.

Other large suppliers of crude oil to the US include Nigeria, Venezuela and Saudi Arabia.

Canada is politically stable, infrastructure is robust and environmental standards are high. Greenhouse gas emissions intensity from oil sands is similar to other import options and is continuously improving – since 1990, oil sands GHG emissions have been reduced by 39 per cent per barrel.

- Read Alberta Enterprise Group's news release, Oil sands boycott unfair and impossible to implement.

Wells-to-Wheels CO_2 emissions from various sources of crude



Employee Perspectives

Operating at near-zero

Name: Lyle Koch

Title: Operations Team Lead

Company: BP

Years of Experience: 10

Location: Dawson Creek, B.C. (Noel project)

Best part of job: Developing an environmentally friendly project.

Success story: Running a well site that has a significantly reduced carbon and ecological footprint.

Compared to conventional natural gas developments, BP's new project near Dawson Creek in northeastern BC produces 85 per cent less greenhouse gas emissions and has used 70 per cent less surface land.

Lyle Koch is BP's man on-site who is responsible for running the ground-breaking operation – the first full-field gas development in Canada to use a solar photo-voltaic system [➡ sidebar].

"The company wanted to have a 'green' well site and that's what we heard from local stakeholders too," says Koch, Operations Team Lead.

"People are amazed at the amount of technology and equipment we're using to make zero-emission well sites. When they drive by our site they can tell it's different."

The annual GHG emissions reduction at the BP Noel project is equivalent to taking 24,000 cars off the road.

While traditional well sites use natural gas to run the necessary valves and pumps, BP uses solar power. When the sun doesn't shine for a week or so, BP uses supplementary power from a thermal electric generator.

Each of Noel's wells is equipped with 12 solar panels to keep them running and Koch says initially it was a bit of a challenge getting everything to work effectively.

"We didn't get it right the first time," says Koch. "We had to do a few different tries to get it to where it was a sustainable site."

Powering production facilities from the BC Hydro power grid further reduces BP's emissions at Noel. Eighty-four per cent of BC Hydro's power is hydro-generated.

BP also uses long-reach horizontal well technology to reduce its land footprint, drilling 111 wells instead of 592 wells required with conventional drilling. Furthermore, drilling multiple wells from one site means only 85 well pads are required.

Koch says he and his colleagues are proud of being part of an award-winning project. BP has won both the Best Practice Award at the 2009 World Gas Conference and CAPP's 2010 Stewardship of Excellence President's Award.

"One of the advantages of a field like Noel, where it's a new development, is we didn't have a lot of resistance from anyone who was used to doing it a particular way," says Koch.

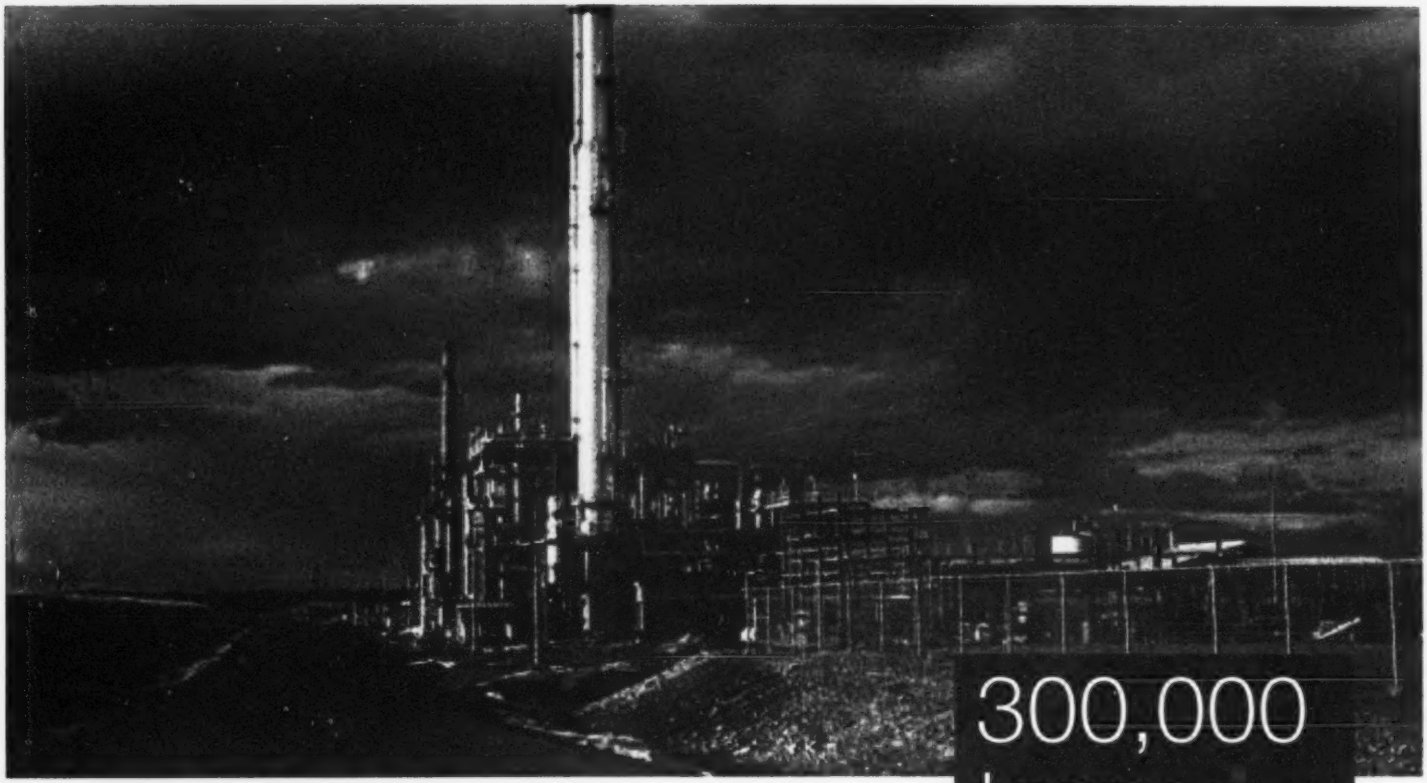
"And it's nice to be a part of a company willing to take the extra step."

▶ Learn more about the **BP Noel Project**.

▶ Read about the **CAPP Steward of Excellence Awards**.

➡ Solar photo-voltaic

Solar photo-voltaic panels consist of cells that contain a photo-voltaic material that converts energy from the sun – solar radiation – into direct current electricity.



Innovation and Technology

Off-gas to less gas

What if you could convert a waste stream from an oil sands operation and convert it into a valuable product that you could sell at market? Williams Energy is taking off-gas from Suncor's oil sands operations, turning it into valuable petrochemical products and reducing Suncor's carbon dioxide and sulphur emissions in the process.

William's 'Hydrocarbon Liquids Conservation Project' (HLCP) started in 2002 to recover higher-value natural gas liquids (NGLs) [➡ sidebar] and olefins that are produced from off-gas, a byproduct of upgrading bitumen.

About 40 per cent of the off-gas consists of natural gas liquids and olefins that can be converted into valuable petrochemical products, says David Chappell, Regional Vice President of Williams Energy Canada.

"Ethylene, propylene and butylenes are not naturally occurring. They're manufactured and most companies spend a lot of money to manufacture them," he says. "Suncor and some other operators create them as a byproduct."

Until now oil sands companies would sweeten the off-gas (remove some sulphur) and burn it as fuel for their operations.

Williams takes the off-gas, removes the 40 per cent it can separate into NGLs and petrochemicals and sends the rest back to Suncor along with natural gas bought to replace the 40 per cent it took out.

The value to Suncor comes because natural gas produces fewer emissions when burned than the original off-gas. "They're getting the same amount of energy back but because they're burning natural gas, they're reducing emissions," says Chappell.

Williams recovers the NGLs and olefins at a cryogenic liquids extraction plant near the Suncor facilities at Fort McMurray. The NGLs and olefins are then piped to Williams' Redwater facility near Edmonton for fractionation and use by petrochemical producers.

▶ Find out more about Williams HLCP.

300,000 tonnes

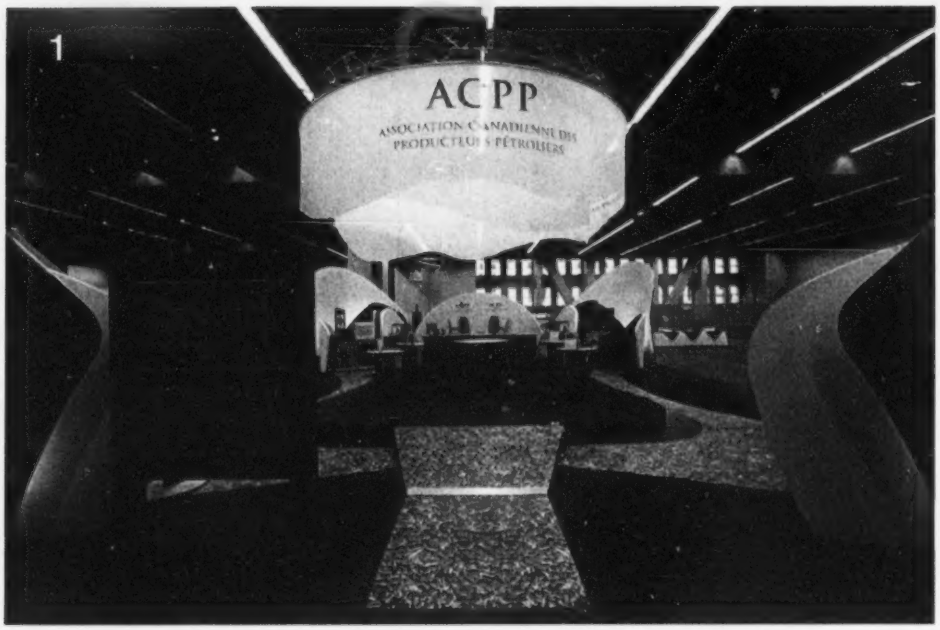
Every year, HLCP reduces Suncor's CO_2 emissions by about 300,000 tonnes. In 2008, HLCP reduced Suncor's SO_2 emissions by 11 tonnes a day.

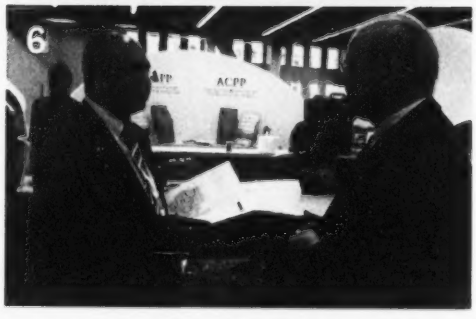
▶ Source: Williams Energy

NGLs

Natural gas liquids include ethane, propane and butane, substances that can be converted into valuable products that help make petrochemical products such as plastics and gasoline.

▶ Source: Williams Energy





1. CAPP's booth at the World Energy Congress 2. Greg Stringham, CAPP (left), Ursula Oltman, Northern Communities Sustainable Energy Initiative, Scott Widmeyer 3. Greg Stringham, CAPP (right), Yoshio Maeda and Yusuke Sogawa both of Honda R&D Co. Ltd. 4. Julie Woo, Canadian Natural and Michel Scot, Devon 5. Kerry Guy, CAPP (left) Event attendee (centre), Paul Barnes, CAPP 6. Event attendee (left), Stephen Rodrigues, CAPP

Upstream Scene

Relationships Behind the Resource

Canada welcomes the world

From September 12 – 16, delegates from over 100 countries met in Montreal at the World Energy Congress (WEC) to discuss challenges the energy sector is facing. The list of over 200 speakers included CEOs, senior executives, energy ministers, academics and world energy industry leaders. 300 exhibitors gathered at the Palais des Congres to present technology, know-how and showcase solutions being developed to secure future energy supply.

CAPP and CAPP member companies were a key sponsor of this event showcasing an impressive 2000 square foot interactive oil sands exhibit. The display addressed key areas of development including air, water, land and people and showcased industry technology and innovation.

- Review CAPP President, Dave Collyer's WEC presentation, ***Responsible Development of Canada's Unconventional Resources.***

World Energy Congress

The World Energy Congress is one of the world's premier energy events.

The theme of the 21st World Energy Congress was: RESPONDING NOW TO GLOBAL CHALLENGES – Energy in transition for a living planet®, provides an important framework for addressing the main challenges facing the energy sector: accessibility, availability, acceptability and accountability.

- Learn more about the World Energy Congress.

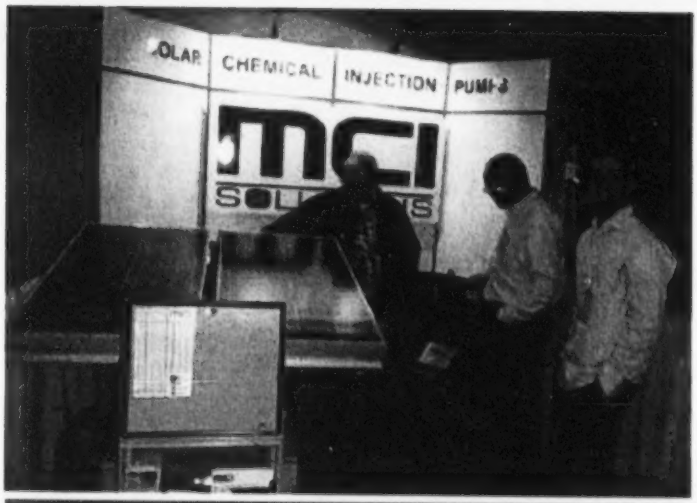
Relationships behind the Resource

B.C. Energy Expos

In April and May, CAPP partnered with Energy Services B.C. and the B.C. Government to host Energy Expos in Dawson Creek and Fort St. John. CAPP also participated in the annual Horn River Producers Group Energy Expo in Fort Nelson in September.

The Energy Expos were designed to bring together oil and gas producers, supply companies and other related services to provide information to the community on industry pre-qualification requirements, future supply opportunities and explore training and career opportunities.

CAPP and CAPP member companies recognize that a qualified and competitive local service sector benefits industry and the communities where operations occur.

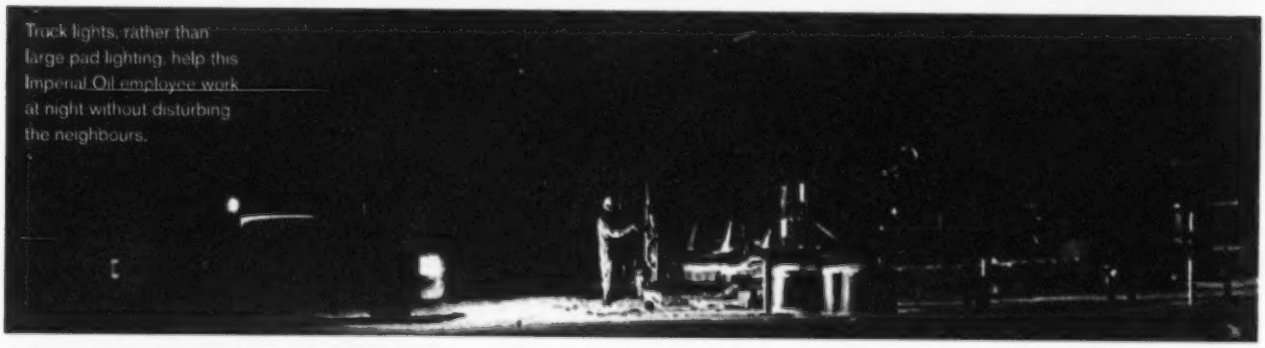


Upcoming Events

October 12 – 13, Fort St. John, B.C.

CAPP is hosting: *Learn How to Contract to Oil and Gas Companies* in Fort St. John. The workshop's objective is to offer insight and practical tools to local contractors in north east B.C. to better position them for contracting opportunities.

▶ Learn more about the CAPP workshop in Fort St. John.



Truck lights, rather than large pad lighting, help this Imperial Oil employee work at night without disturbing the neighbours.

Turning the lights off

The breathtaking night sky is a big reason people love living in northern Alberta. But oil sands production facilities operate on a 24/7 basis and typically use extensive night lighting. After hearing concerns from local residents about their facility's lighting, Imperial Oil's Cold Lake Operations, the largest drilling (in situ) oil sands project in Canada, introduced a new on demand lighting initiative in 2009.

"Crane Lake is now in a more natural state for wildlife and for residents and visitors who are drawn to this area because of its natural beauty, including the spectacular night sky."

– Gord Coulman, President of the Crane Lake Advisory and Stewardship Society (CLASS)

Jennifer Haverhals, Environmental Team Leader at Imperial Oil Resources in Bonnyville, Alberta says, "Our neighbours spoke and we listened. We brainstormed and were able to identify a solution that worked for our operations and that we could quickly implement." As a first step, globe lighting was replaced with more directional focused spot lighting in the design for well pads. After testing, Imperial then implemented truck-mounted external lighting, where only the wells being worked on are lit and overhead light standards remain off.

Saving electricity

In addition to dramatically reducing artificial nighttime light, Imperial has reduced electricity consumption by approximately 1,855,000 kWh, saving about 1,800 tonnes of greenhouse gas emissions.

NEW CAPP PUBLICATIONS

NL and NS fact sheets

Updated offshore industry fact sheets for Newfoundland and Labrador and Nova Scotia highlight economic benefits, current and potential activity, and the industry's commitment to environment, health and safety.

- Access the **CAPP Newfoundland and Labrador fact sheet**.
- Access the **CAPP Nova Scotia fact sheet**.

Nova Scotia's Oil and Natural Gas Industry
Contributing to a Strong Provincial Economy
Newfoundland and Labrador's Offshore
Oil and Natural Gas Exploration and Production Industry
Contributing to a Strong Provincial Economy

3,000

In 2009, 3,000 people were directly employed in the oil and gas industry in Newfoundland and Labrador.

$17 billion

Since 1995, the industry has invested $17 billion in developing Newfoundland and Labrador's offshore resources.

34%

34 per cent of Newfoundland and Labrador's nominal GDP came from the oil and gas industry between 2005 and 2009.

$7.5 billion

Since 1995, the industry has invested $7.5 billion in developing Nova Scotia's offshore resources.

$70 million +

To date, the offshore oil and gas industry has spent $70 million on research and development, education and training in Nova Scotia.

Offshore regulatory structure

In a written submission to the Helicopter Safety Inquiry stemming from the crash off Newfoundland and Labrador in March 2009, CAPP verified the regulatory structure for offshore Newfoundland and Labrador oil and gas regulation is fundamentally sound.

The submission states any recommendations to enhance helicopter safety offshore should be made within the existing regulatory structure.

The inquiry was established by the Canada-Newfoundland and Labrador Offshore Petroleum Board in October 2009 to examine the safety of helicopter travel for offshore workers. Phase One concluded in September.

- Read **CAPP's and other submissions** to the inquiry.
- Learn more about the **Offshore Helicopter Safety Inquiry.**

Offshore Helicopter Safety Inquiry
Newfoundland and Labrador • Canada

Offshore ban not justified: report

A Senate committee has determined that Canada's offshore regulatory regime is modern, up-to-date and among the most efficient and stringent in the world.

The Standing Senate Committee on Energy, the Environment and Natural Resources has reviewed Canada's offshore drilling in the wake of BP's Deepwater Horizon incident in the Gulf of Mexico and written a report entitled, *Facts do not justify banning Canada's current offshore drilling operations.*

While the report identified some areas of improvement, it concluded there is no justification for a ban or moratorium on current offshore operations. It says Canada's regulatory regime is continually upgraded and improved based on lessons and experiences from incidents and other jurisdictions, such as the United States.

The Senate report says while spending on research and development is significant, oil and gas companies should increase spending, into "new and better technology for dealing with deepwater blow-outs and responding to catastrophic spills."

The committee also expressed concern about Canadian laws governing the liability and responsibility for loss and damage (including economic loss and environmental cleanup expenses) following a major oil spill offshore. The report says Canadian rules are somewhat confused and conflicting, and require a careful review.

▶ Read the full **Senate committee report**.

Draft scope for NEB review

The National Energy Board (NEB) has released the draft scope for its Arctic Offshore Drilling Review.

The NEB will engage the industry and public in reviewing the requirements for drilling safely while protecting the environment, responding effectively if things go wrong and considering lessons learned from the recent Deepwater Horizon leak in the Gulf Coast.

Interested parties can apply to the NEB to participate in the review.

CAPP is already a registered participant in the review and supports it as a forum for thoughtful dialogue on offshore practices. A working group of interested CAPP members will share information and help coordinate industry input.

The NEB is finalizing the scope and schedule for the review and is expected to have further details in the fall.

▶ Read more about the **Arctic Offshore Drilling Review.**

694 wells

694 wells have been drilled offshore Canada.

▶ Find out more about **Canada's offshore industry**.

Industry Practice and Regulations (continued)

Unauthorized Trespass: new protocol

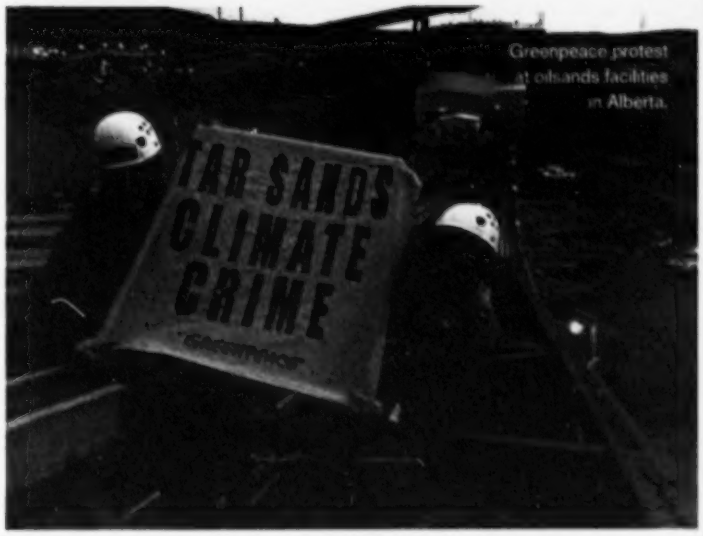
Oil and gas operators have a new tool to use in situations where activists gain unauthorized access to energy facilities and sites.

The Energy Sector Response to Security Breaches Protocol standardizes industry, government and police response to incidents where activists disrupt operations and place themselves – and others – in danger.

The protocol provides direction that is specific to breaches of operating sites (it doesn't apply to terrorist, labour or criminal actions). Individual producers may develop additional detailed procedures, facility-specific plans or emergency response procedures.

The protocol was developed collectively by industry, the federal and Alberta governments and law enforcement agencies.

CAPP will review the protocol regularly to ensure it stays current.



Greenpeace protest at oilsands facilities in Alberta.

- The protocol is available only to CAPP members on MemberNet (Document # 169091).
- For more information, please contact Rick Laursen at CAPP.

Deep fracturing: ERCB

CAPP's Deep Fracturing Committee is liaising with Alberta's Energy Resources Conservation Board about the science and technology around deep fracturing [⇻ sidebar].

As part of the Unconventional Gas Regulatory Framework Project (reviewing deep shale gas, deep coals and tight gas in Alberta), the ERCB asked for a more technical understanding of deep fracturing in unconventional gas plays.

The Deep Fracturing Committee has completed a detailed ERCB survey and is continuing dialogue into the fall. The finding from this review will also be relevant to other jurisdictions.

Deep Fracturing

Deep fracturing is a process that opens new channels in the rock surrounding a production well. Under extremely high hydraulic pressure, special fluids are pumped down the well. The pressure causes cracks to open in the formation allowing more oil and gas to flow to the surface.

- Source: Oilgasglossary.com

Canadian Association of Petroleum Producers (CAPP)

The Canadian Association of Petroleum Producers (CAPP) represents companies, large and small, that explore for, develop and produce natural gas and crude oil throughout Canada. CAPP's member companies produce about 90 per cent of Canada's natural gas and crude oil. CAPP's associate members provide a wide range of services that support the upstream crude oil and natural gas industry. Together CAPP's members and associate members are an important part of a $110-billion-a-year national industry that provides essential energy products. CAPP's mission is to enhance the economic sustainability of the Canadian upstream petroleum industry in a safe and environmentally and socially responsible manner, through constructive engagement and communication with governments, the public and stakeholders in the communities in which we operate.

If you would like to receive this newsletter directly from CAPP, email your request to upstreamdialogue@capp.ca.

2100, 350 – 7 Avenue SW
Calgary, Alberta
Canada T2P 3N9
Telephone: 403.267.1100
Fax: 403.261.4622

403, 235 Water Street
St. John's, Newfoundland and Labrador
Canada A1C 1B6
Telephone: 709.724.4200
Fax: 709.724.4225

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